The Villages FLORIDA Amateur RADIO Club

K4VRC

"Tell Us About Your Antenna"

Eleven TVARC Members Showing Us What They Use In Their Shacks

Order of Presenters:

1. John Ellis NP2B
2. Ken Kaplan WB2ART
3. Dennis McKinney N0SMX
4. George Rutkoskie W4GOR
5. Mike Myers K3DO
6. John Randall K4CYA
7. Art Fenn KB9MI
8. Sam Miceli KJ4KJY
9. Steve Waterhouse N1JTR
10. Gary Sienkiewicz W2TR
11. Faith Olen N4FMO

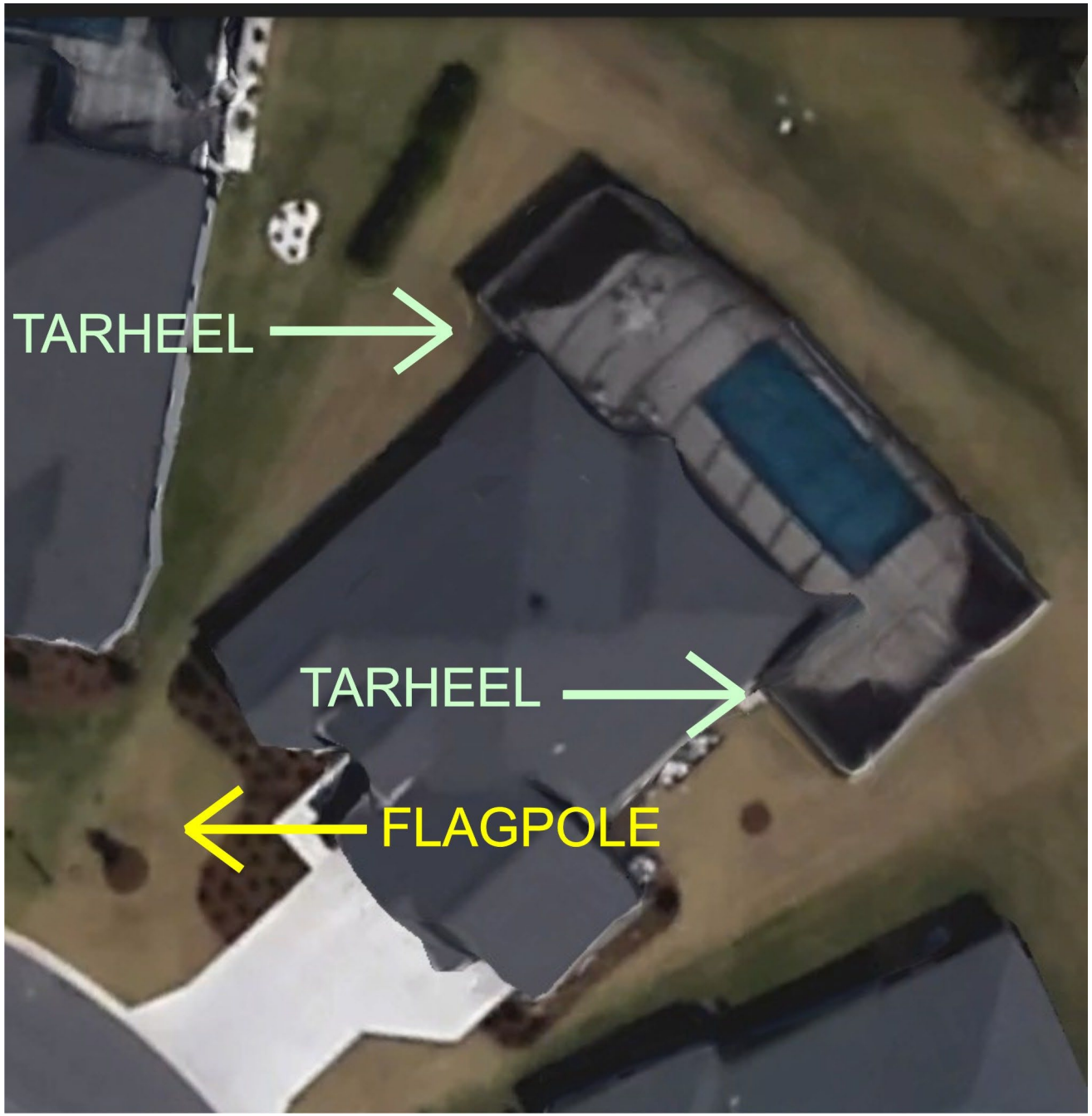
“Tell Us About Your Antenna”

NP2B

John

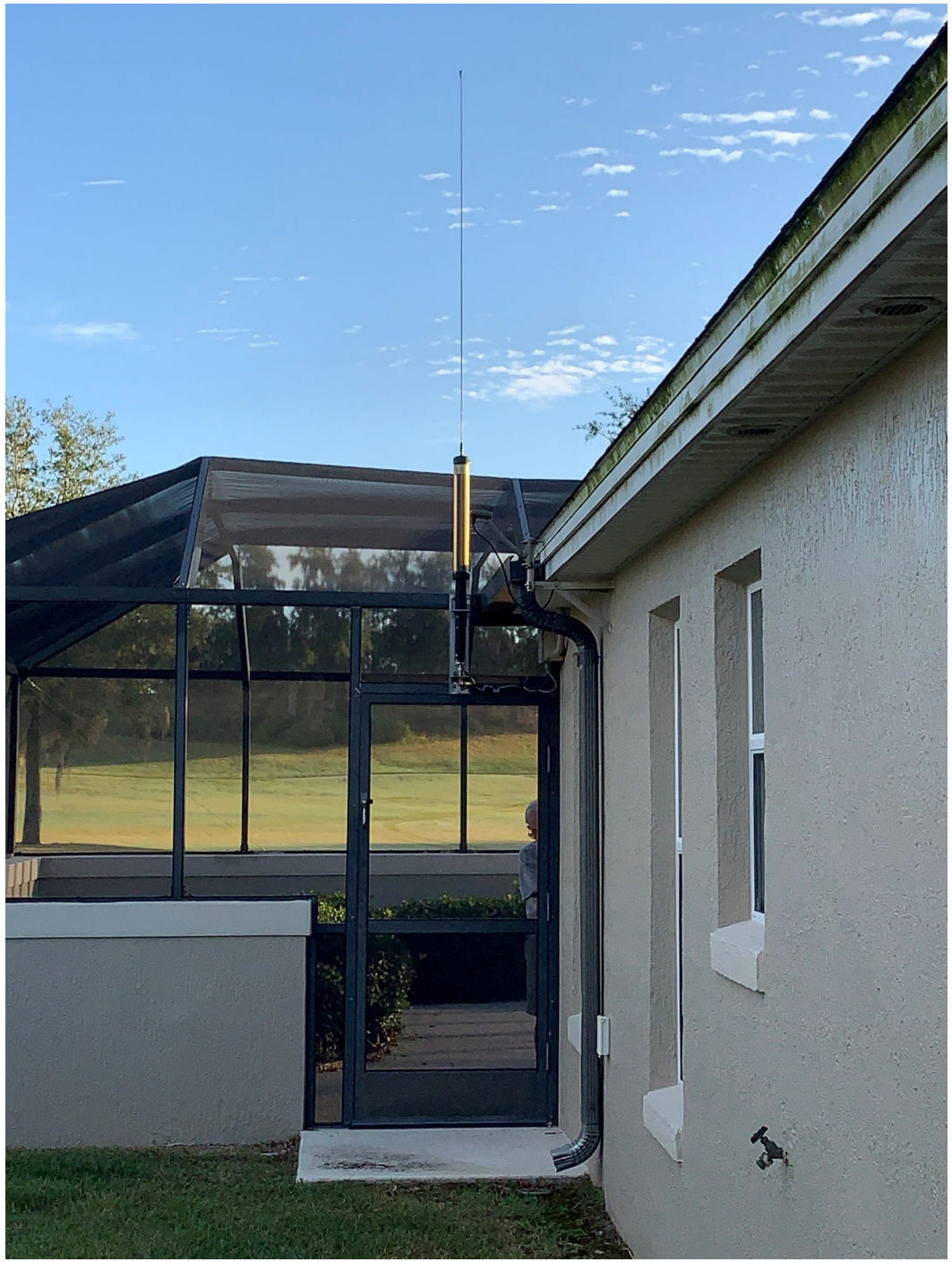
Ellis

Bird’s Eye View of Antenna Farm



Street View of Flagpole Antenna

Base of Flagpole Showing Tuner and Acetal Rod



Tarheel Motorized Antenna

From a Distance of About 25’

Closeup of Tarheel Showing Cable Placement, Exit from House and Grounding

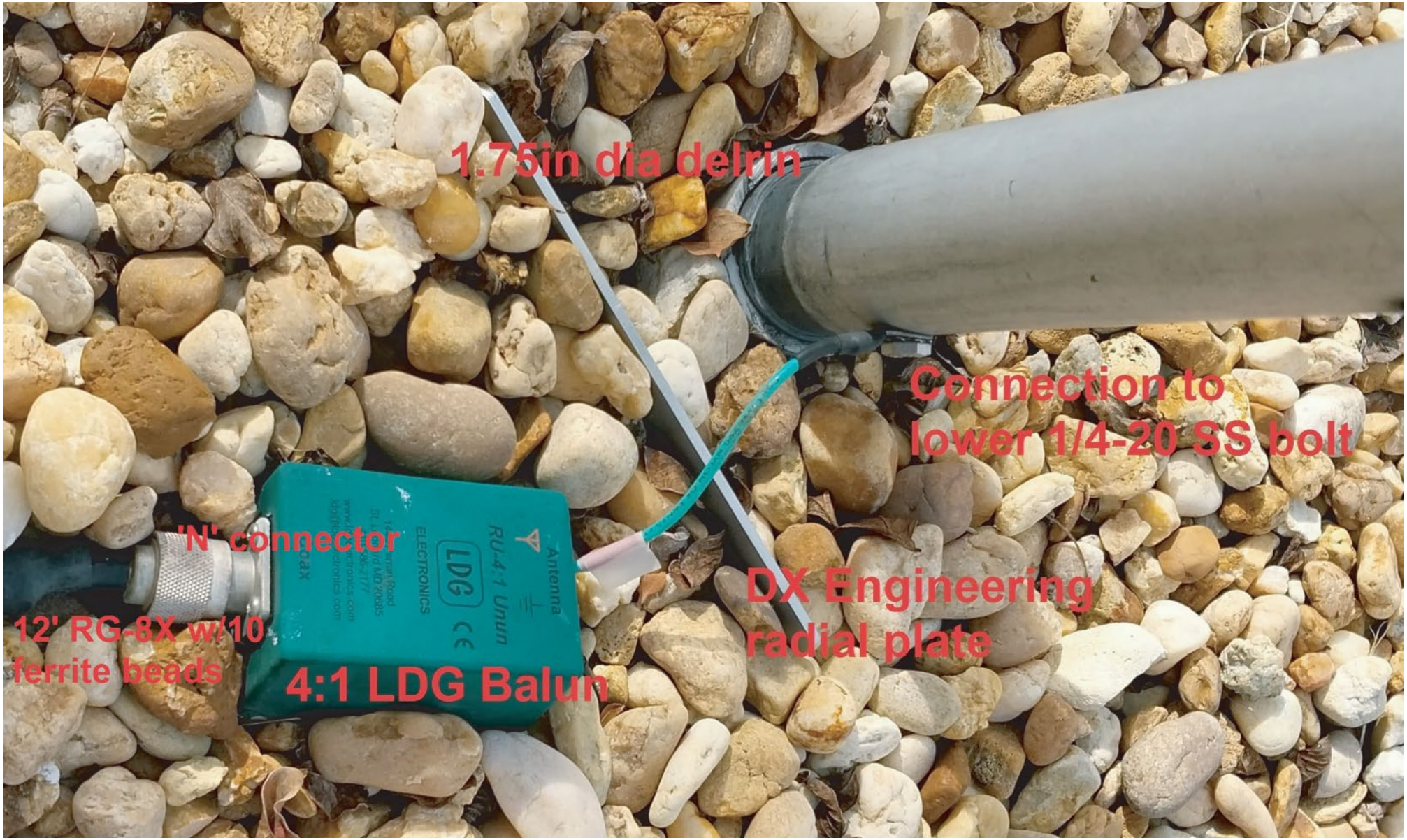
Tarheel Controller and 12V Power Injector for Flagpole Tuner

Flagpole Antenna at WB2ART

Flagpole antenna installation at WB2ART

Flagpole is 22 ft high, from NP2B article in
Sep 2017 QST. ARC approved.
Approx 9 ft from the shack wall with 12 ft of RG-8X double shielded coax, 4:1 balun and 10 ferrite beads on coax.
Antenna tuner installed in KXPA100 amplifier.

Radials are under the rocks in the area where the flagpole is located. There are 8 radials.


1.75in dia delrin
Connection to
lower 1/4-20 SS bolt
'N' connector
DX Engineering
radial plate
12' RG-8X w/10
ferrite beads
4:1 LDG Balun
Antenna
RU-4:1 Unun
LDG
ELECTRONICS

Antennas at N0SMX

N0SMX Antenna Farm

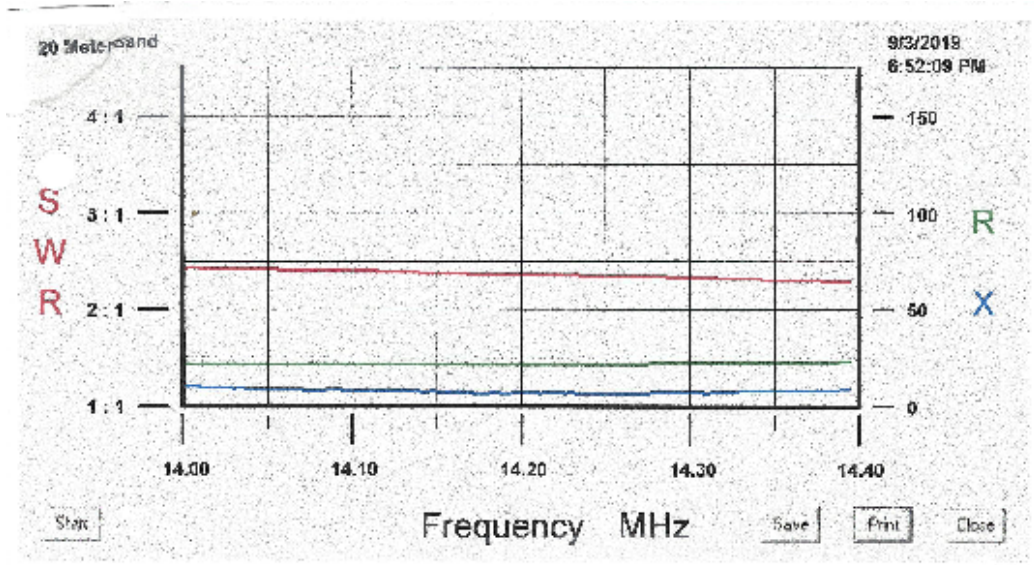
“Tell Us About Your Antenna”

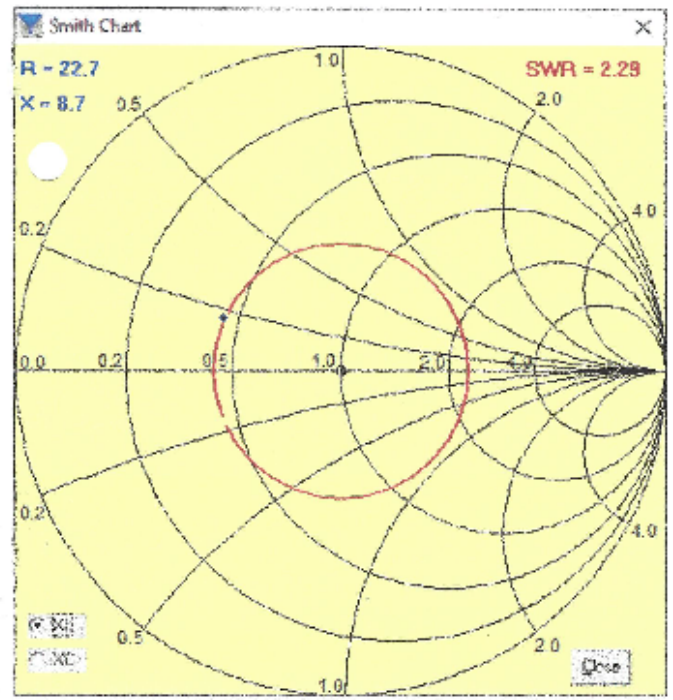
W4GOR

George

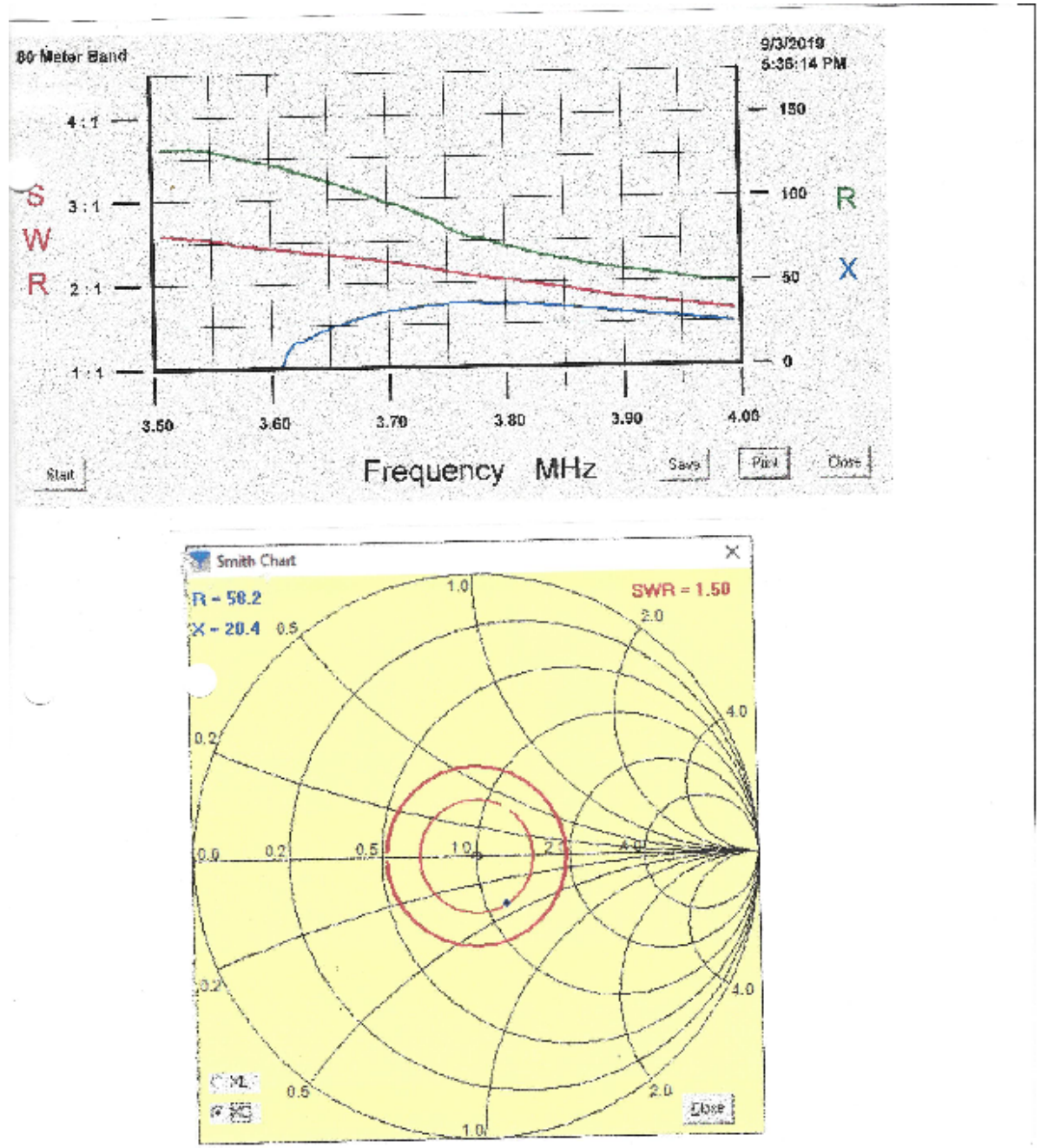
Rutkoskie

20M Roof Dipole

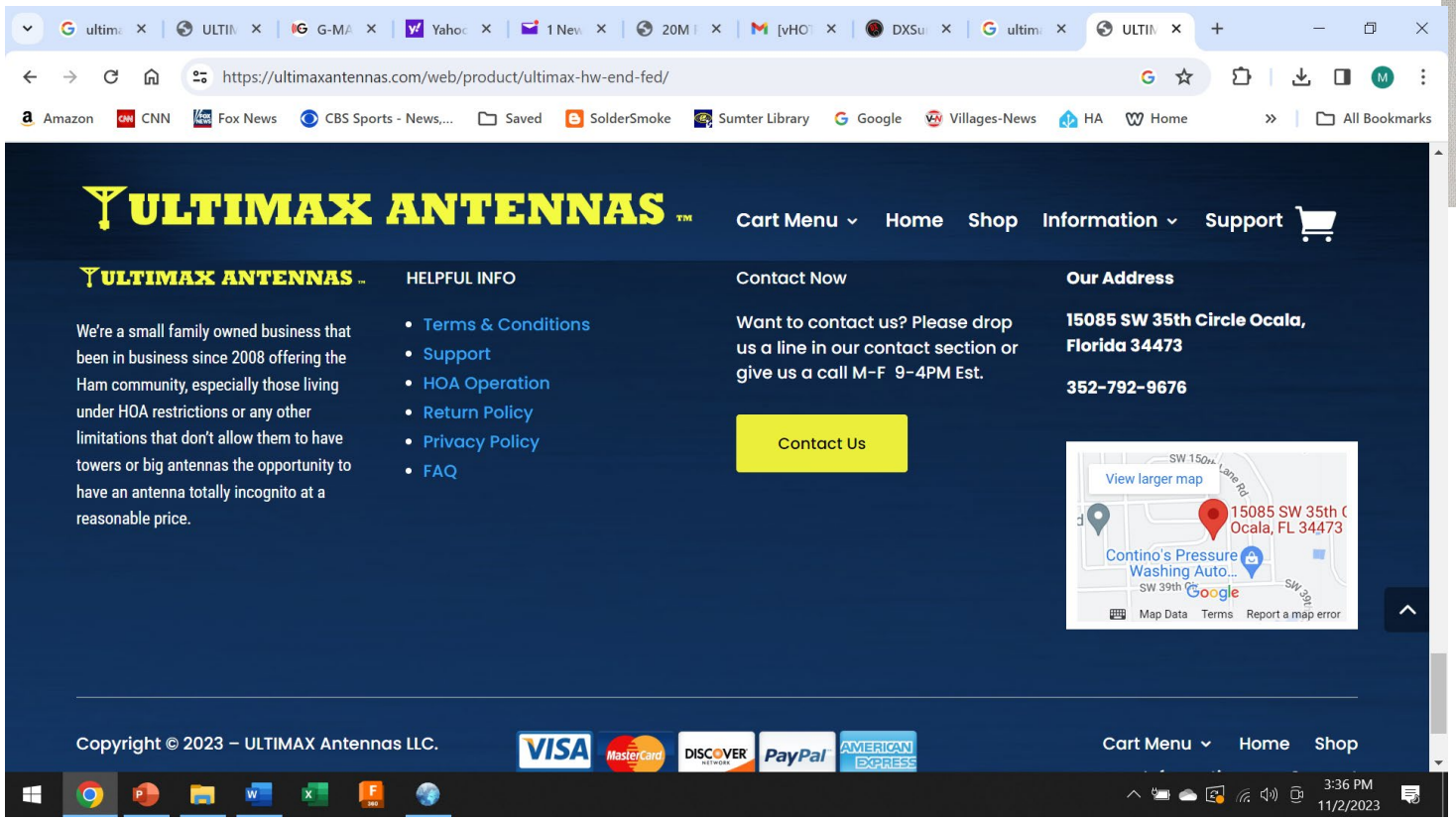




80 M Roof Dipole



End Fed Dipole in Attic



Ventenna on Roof

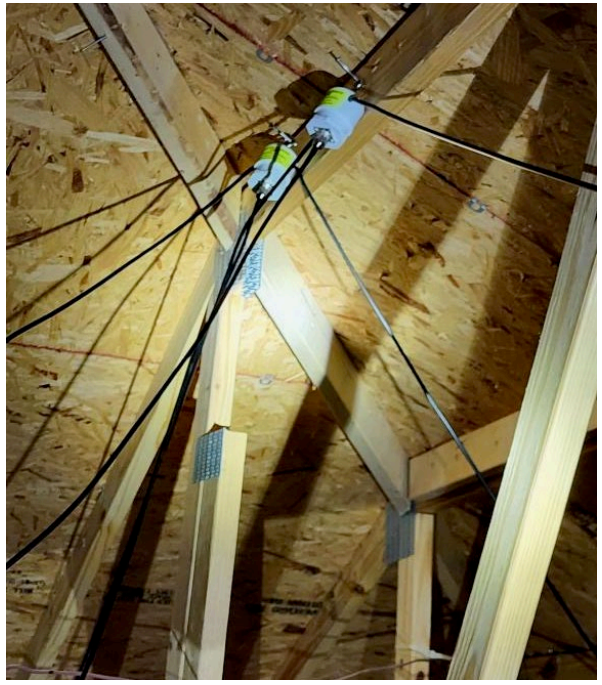
Tar Heel in Backyard

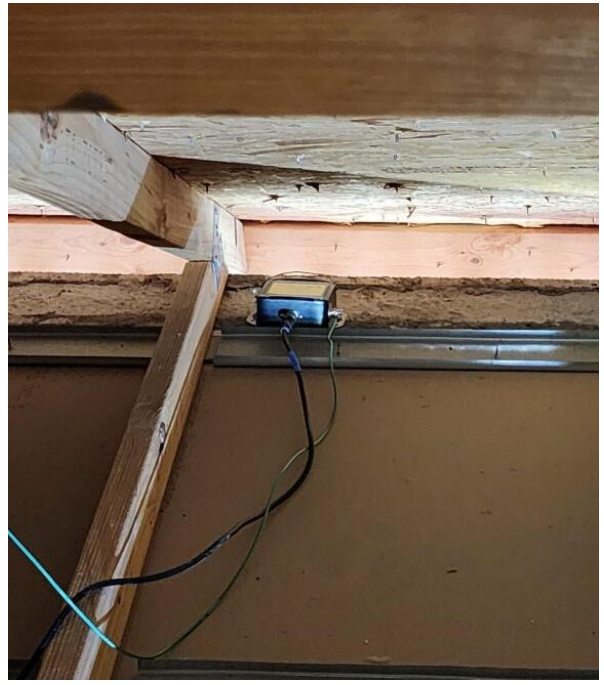
My stealth antennas

Mike Myers - K3DO

HF wire antennas

- x2 10-meter dipoles at 90 degrees to each other
- 15-meter dipole
- 17-meter dipole
- 80-meter half wave end-fed





Antenna switch

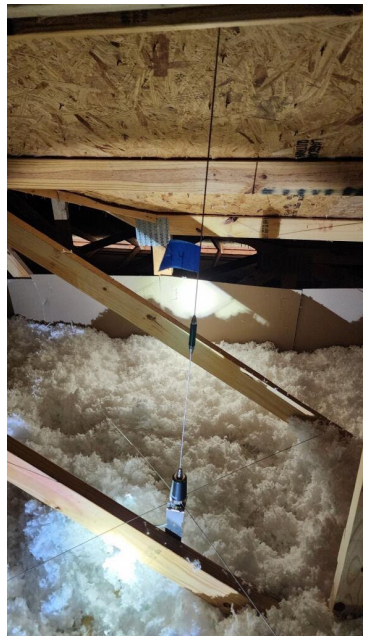
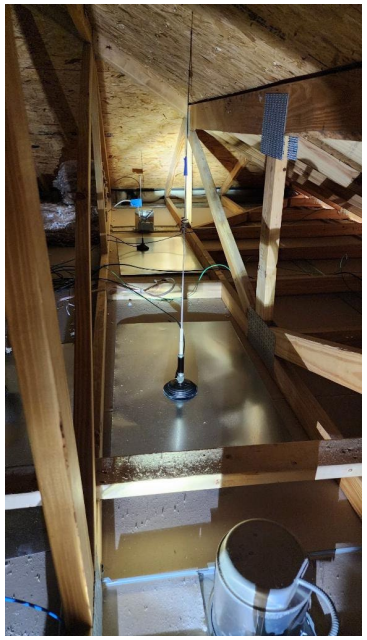
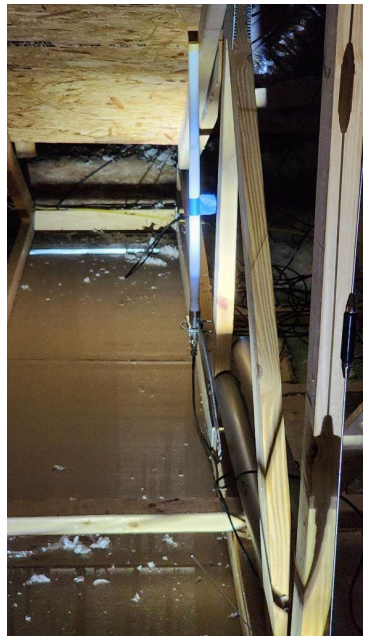
- All the wire antennas in the attic connect to a 5-port remote antenna switch
- One wire goes from the attic to the shack
- There is a remote control in the shack that allows me to select the antenna and disconnect all antennas

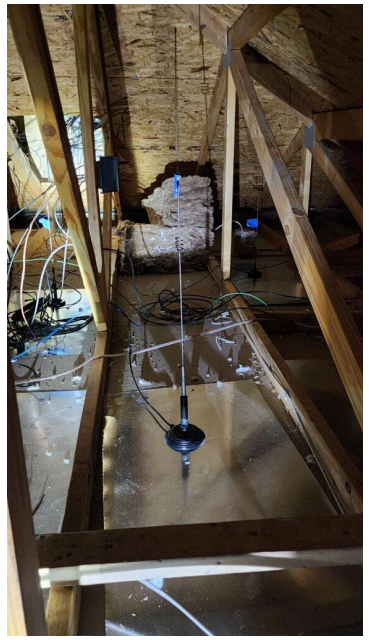
Flagpole Antenna

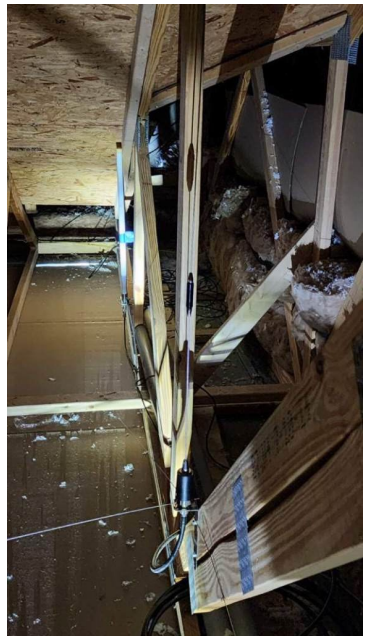
- New Install
- Conduit runs from the house to the flagpole
- 20 foot tall
- off-center dipole
- Remote antenna tuner
- Greyline Performance Antennas

VHF / UHF

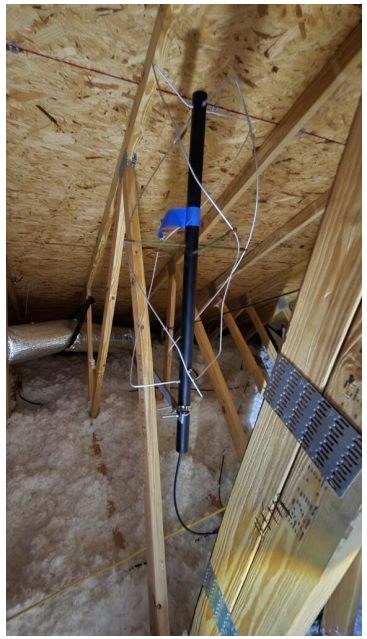
Dual Band Groundplane	Kenwood D-710
Long Dual Band	Yaesu FTM-400
Long Dual Band	Icom ID-5100
GMRS	GMRS
Dual Band Groundplane	Yaesu 7900
Quad Band	Yaesu 8900r
Dual Band Groundplane	Anytone 578
Antenna Switch	Icom 7610
QFH	SDR Receiver
ADSB	ADSB Receiver
LORA	LoraWAN
1.2 Ghz Antenna	Icom 9700
Dual Band Groundplane	Spare 1
Dual Band Groundplane	Spare 2
Mag Mount	Spare 3
Discone	Trunkmaster Scanner
Tall Mag Mount	Icom 9700
Tall Mag Mount	BBS



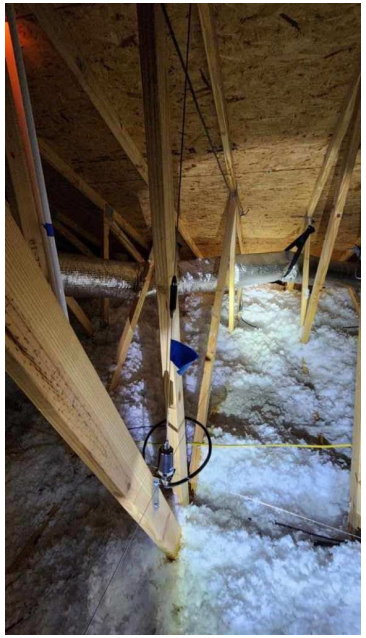
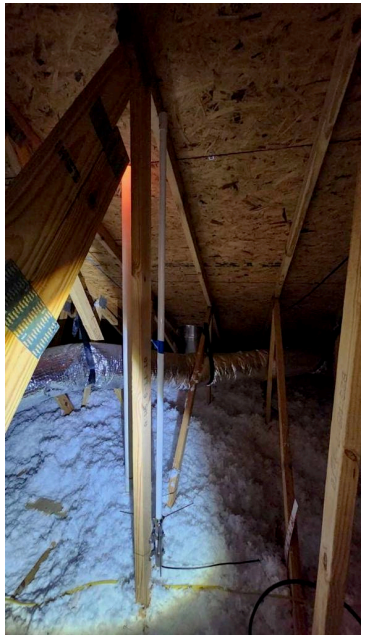
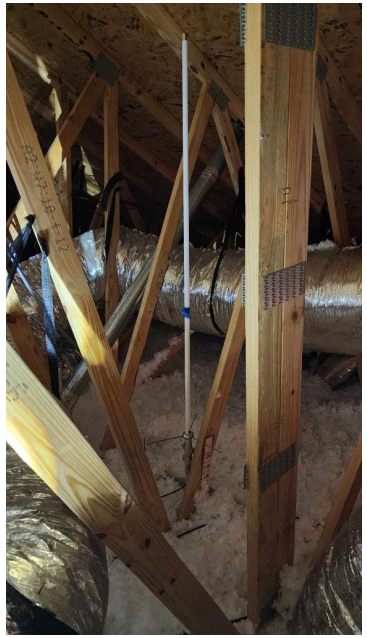



VHF / UHF





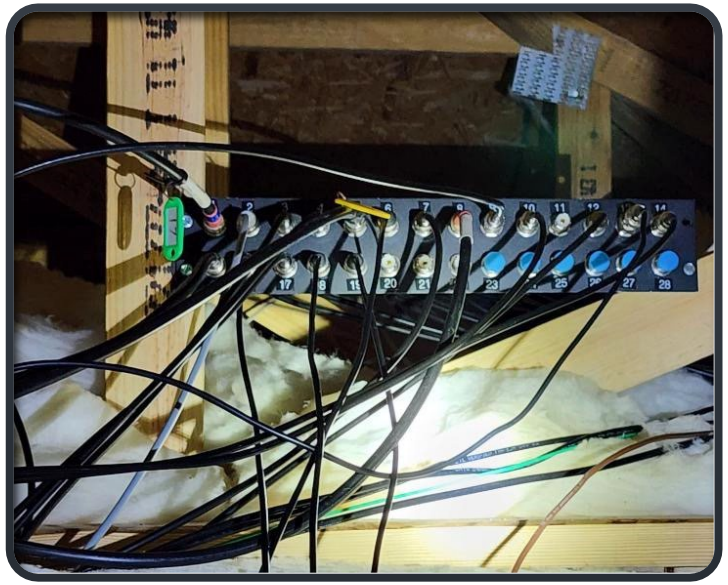




Other radio stuff

- ARDEN
- LoRaWAN
- Meshtastic
- LoRa

Connecting everything up

- RF Patch Panel from old shack
- x2 2-inch conduit runs from attic to new shack (new construction)
- 3 grommets for wires
- Panel to access cables from attic and flag pole



More Details

- Blog: k3do.com or mikemyers.me
- Email: mike@k3do.com
- Youtube: https://youtu.be/aOlR4FU5RL4

“Tell Us About Your Antenna”

K4CYA

John

Randall

PALOMAR ENGINEERS®

1:1 Slip On Feed Line Common Mode Choke Kit
For 1/2" OD Coax
1.8-60 MHz

- ☐ SLO-1/2-5/BA-8-5 (5 Bead): 9-15 dB CMRR
- ☒ SLO-1/2-10/BA-8-10 (10 Bead):14-22 dB CMRR
- ☐ SLO-1/2-15.BA-8-15 (15 Bead): 17-27 dB CMRR

FEED LINE CHOKES

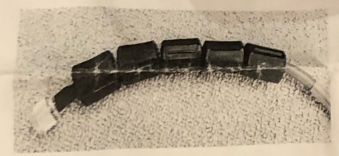
Model Snap On/Slip-On
SNO-1/2-5, SNO-1/2-10, SNO-1/2-15
SLO-1/2-5, SLO-1/2-10, SLO-1/2-15
SLO/SNO-1/2-4VHFUHF

P On Feed Line Choke

G-8, RG-8X, LMR-400, RG-213, and similar cables
be placed right below the antenna feed point

connection. They
suppress current f

For best performa
the antenna (and r
the entrance to the
by the outside of the shield from getting into your radio when receiving.



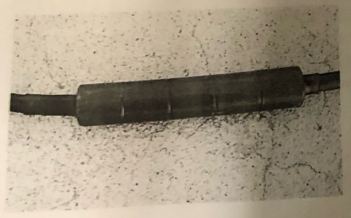
Your assembled SO-1/2-5 choke should look like the picture below with snap on ferrite beads installed:

USE

A very effective placement is every 1/2 wave electrically – (remember to multiply physical length by velocity factor to get the electrical length (Velocity factor is usually about 66-80% for most coax used in ham radio applications).

SLIP On Feed Line Choke

Model SLO-1/2 family of chokes are for use with ½" coax cable like RG-8, RG-213, 9913, LMR-400 and similar cables up to ½" diameter – works on all impedances (50, 62, 75, 90 etc), 160-6 meters. Choose SLO-1/2 (5 beads) or for extended choking, choose SLO-1/2E (10 beads) or for super extended choking choose SLO-1/2SE (15 beads).



Your assembled SLO-1/2 choke should look like the picture on the left with shrink tubing and ferrite beads installed:

INSTALLATION

First slide one of the small pieces of tubing over the cable. Then slide the five (10 or 15 depending on model) beads into the large


WELCOME
AMERITRON

My Antenna System
Art Fenn KB9MI

MY VILLAGE ANTENNA SYSTEM

ART FENN - KB9MI

ANTENNA BRAND: Hustler 6BTV (6 Band Trap Vertical) Antenna $300

MODIFICATIONS: Added DX Engineering - Tilt Base $100, Direct Coax Feed Kit $34, Radial Plate $90

INSTALLATION LOCATION: Back corner of my Courtyard Villa Lot

INSTALLATION: On a 3 Foot X 1 ¼ inch OD Galvanized steel water pipe,

30 - 12 foot ground radials as needed $70,

INSTALLED: 2005

STATION EQUIPMENT: Kenwood TS-480 100 Watts

ANTENNA TUNER: LDG KT-100

OPERATIONS: General and DX

MY ANTENNA SYSTEM TODAY'S COST ESTIMATE +/- $600


DX
ENGINEERING
DXENGINEERING.COM
MADE IN USA
PAT. PENDING


DX
ENGINEERING
DXENGINEERING.COM
MADE IN USA
PAT PENDING

MY VILLAGE ANTENNA SYSTEM

ART FENN - KB9MI

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MY ANTENNA SYSTEM TODAY'S COST ESTIMATE +/- $600

The Salad Bowl Special

Sam Micelli, KJ4KJY

October 2013 QST pg 46

The Mixing Bowl Special

Ham ingenuity finds a ground plane amid the kitchen gadgets.

Ed Toal, N9MW

Despite my best defenses, every now and again I find myself on a shopping trip with my wife Sharon, W9RNF. During one of these "adventures" a few years ago, I found myself bored in the kitchen utensils section of a housewares store. Just as my eyes were glazing over, I spotted a stack of stainless steel mixing bowls — on sale, no less.

Picking one up, I noted the diameter was about 12 inches and the distance from the center to the rim on the outside appeared to be a little more than 8½ inches, which is about a quarter wavelength at 446 MHz. I also noticed the flat spot on the bottom was about four inches in diameter. Minutes later I was at the checkout, bowl in hand.

The Transformation

At home, I rounded up an unused 3 foot dual band mobile antenna. This particular antenna mounted on a SO-239 connector, although with a few modifications to my approach I could have used a mobile antenna with a different mount (such as a 3/8-24 stud). I also located a long threaded female coupler (83-1F), a 1¼ inch pipe flange and a piece of 1¼ inch galvanized water pipe.

As you can see in the photos, the assembly was straightforward. The water pipe was cut to 19 inches. I chose that length because it was long enough to mount the unit to a side arm on my tower and because it might possibly act as a decoupling stage for the coax and/or provide a ground side for the 146 MHz element. Of course, your mounting requirements will likely differ.

To my delight and amazement the indicated SWR was almost flat on both bands — but that was as far as my project went. Distractions intervened and I never got around to actually installing my Mixing Bowl Special. A friend in need of a UHF/VHF antenna saw it lying in my shop and wanted to put it up at his house. I gave it to him on indefinite loan and by all reports he was quite pleased with the antenna's performance. The antenna returned to me years later and was once again relegated to my shop, where it was little more than a dusty curiosity.

A Home at Last

Recently, I decided to put up an antenna for simplex and repeater communication at our cottage. That's when my gaze fell upon the lonely Mixing Bowl Special.

The Mixing Bowl Special with its gleaming steel ground plane.

The best I could do was mount it to a 10 foot TV mast attached to the deck railing. The 19 inch pipe and flange were removed because it was difficult to mount and too heavy for the TV mast. Instead, I installed a stainless steel L bracket that I secured to the mast with hose clamps. To my amazement, the SWR on 146 MHz was still nearly 1:1 and the antenna seemed to work like a champ.

More Exploration

I've since learned a few basics in using antenna analysis programs, but analyzing the Mixing Bowl Special may be a bit tricky. Perhaps with *EZNEC* using many radials with many sections (so a curve could be approximated) one could at least get a sense of why it works on 146 as well as 446 MHz despite having only the mixing bowl as a ground plane.

Regardless, further testing was in order. I purchased a similar bowl and again used a fully threaded female-to-female UHF coupler mounted in the center of the bowl. My antenna test site was atop a firewood pile about four feet high. In this environment the 19 inch pipe was not used and there were no other metallic objects within several feet.

I used a banana plug in the center conductor and lengths of number 12 solid tinned wire trimmed to ¼ wavelengths on 146 and 446 MHz. The 2 meter ¼ wavelength proved to be a bit longer (21 inches) than expected, but measured in at <1:1.05 SWR on my MFJ269 analyzer.

Using a 5 W handheld transceiver I readily accessed repeaters 25 and 50 miles away with full scale readings (no claim to a quantified signal strength intended). On 440 MHz an SWR of <1:1.2 was achieved with an element about 7 inches long. I was able to access a repeater 25 miles distant at full scale as well. As far as I could tell, the stain-


Leng


MFJ
MFJ-1422
"200 Watt"
Dual Band


Motorola mount and strain relief

1380
Suffield St
House Specs
Arch. Permits
Tape Map
Appliances:
10/13+Wty.
(for kitchen)
10/16+Wty.
(washer/dryer)
HVAC 4/15'
Water Heater
(2/19/13')
Garage Door Info
Sprinklers
Water Softener
THE AMERISPEC REPORT
THINGS TO DO
VALUE
BUNDLE
Street-Atlas USA
5.0
prime video
NEW EPISODES WEEKLY
free delivery
free listening
AT&T MICROCELL
SUPERVISORS MANUAL
COTV DIVISION 7
MIDDLESS 11
250
COUNT
Cards
Envelopes


VERSION 5.0
BUNDLE
THINGS TO
The Villages. The Path to
THE AMERISPEC® REPORT
1380 Suffield St
House Specs
Arch. Permits
Tape Map
Appliances:
10/13+Wty.
(for kitchen)
10/16+Wty.
(washer/dryer)
HVAC 4/15'
Water Heater
(2/19/13')

Flagpole w/o Radials For Limited Space

Steve Waterhouse

N1JTR

The Solution: 1/2 wave OCF Dipole

Google: W6NBC Antenna

All-band HF Flagpole Vertical

No-radial, 21 ft. free-standing flagpole antenna is inexpensive, works all HF bands, and is neighbor/CC&R proof.

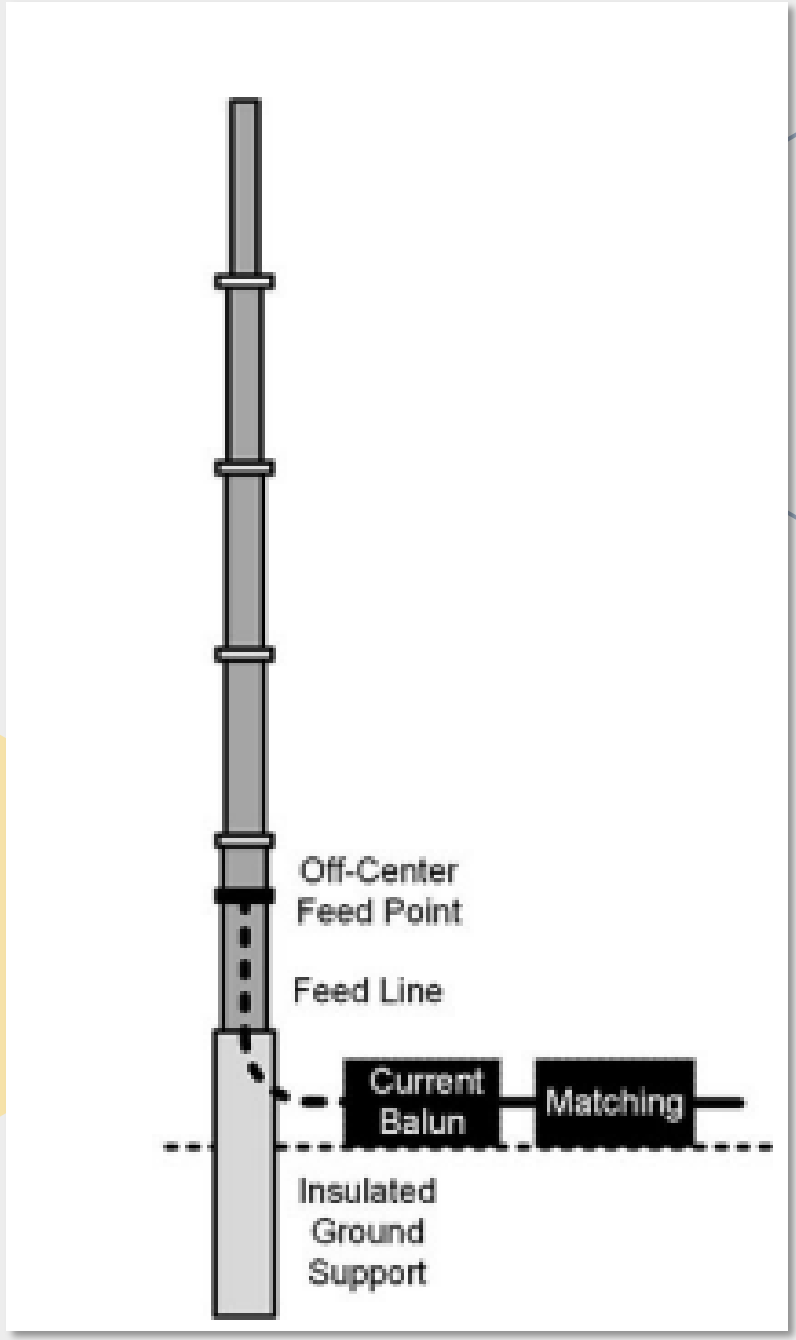
By John Portune W6NBC

What ham hasn't looked at a flagpole and thought, "That would make a great HF antenna. My neighbors wouldn't have a clue." Great as this idea may sound, home brewing a well-disguised yet efficient HF flagpole antenna isn't as easy as many might think.

These are the challenges. To be both stealthy and a good performer, a flag-flying HF antenna should (1) have no radials (2) be just a plain pole that is externally tuned and matched (3) work multi-bands and (4) be fed coaxially (5) be free standing. Sound difficult? Not so. This attractive patriotic home-brew special (Figure 1), accomplishes all these at modest cost.

The Design: 1/2 wave OCF Dipole

Google: W6NBC Antenna



The Parts:

DX Engineering

20 Ft. Telescoping Flag Pole Kit

Add to List

$69.99

DX Engineering 450 Ohm Ladder Line DXE-LL450-CTL

Part Number: DXE-LL450-CTL

$1.18

Qty. 12 **$14.16**

Buy It Again

LDG Electronics 1:1 Current Baluns RBA-1:1

Part Number: LDG-RBA-1-1

$29.99

Qty. 1 **$29.99**

Buy It Again

LDG Electronics RT-100 Combo Remote Antenna Tuners RT-RC-100

Part Number: LDG-RT-RC-100

$279.99

Qty. 1 **$279.99**

The Issue

- 2 in. pipe cut to flex into pole

The Fix

- 1.5 in Pipe
- 1.5 in Couplings
- No Cuts

New vs Old

FB: Amateur Radio In The Villages

Google: w6nbc flagpole

New

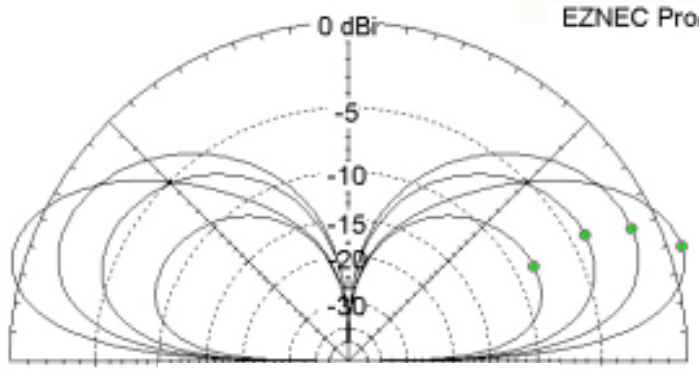
Old

It Works: DXCC & WAS 80-6M

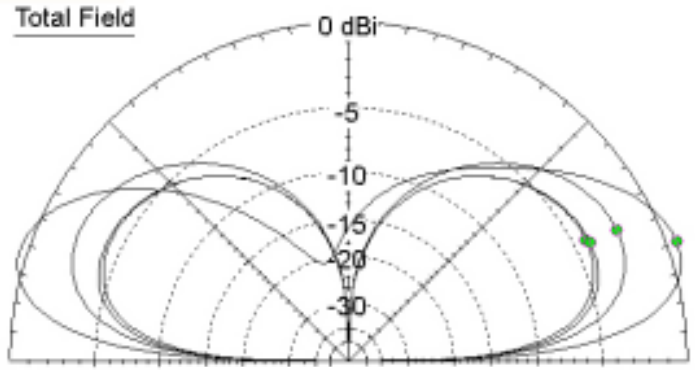
FB: Amateur Radio In The Villages

Google: w6nbc flagpole

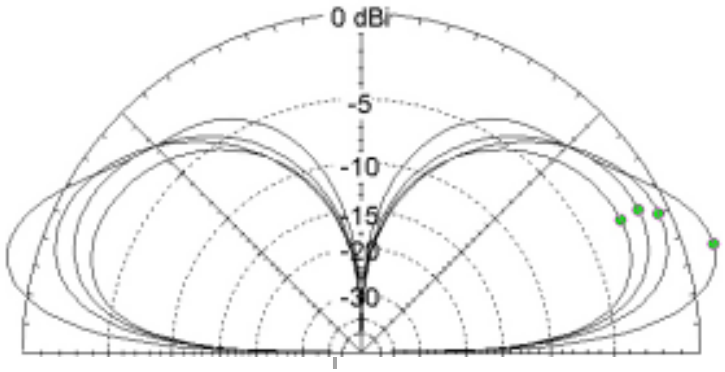
Adr: 3263 Kranz Ave.



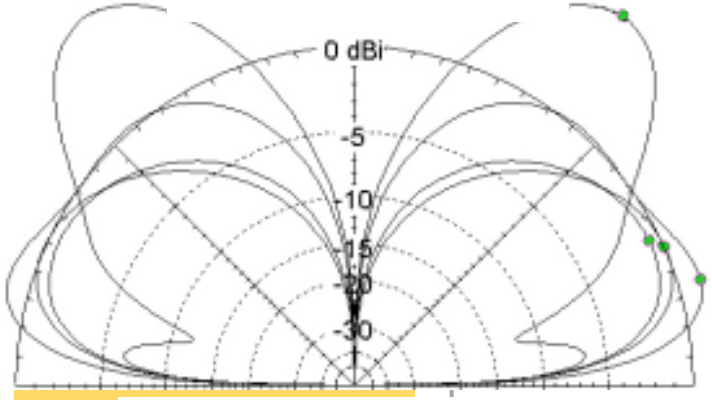
Flagpole



Cushcraft R9



20ft with 20 ft. Radials



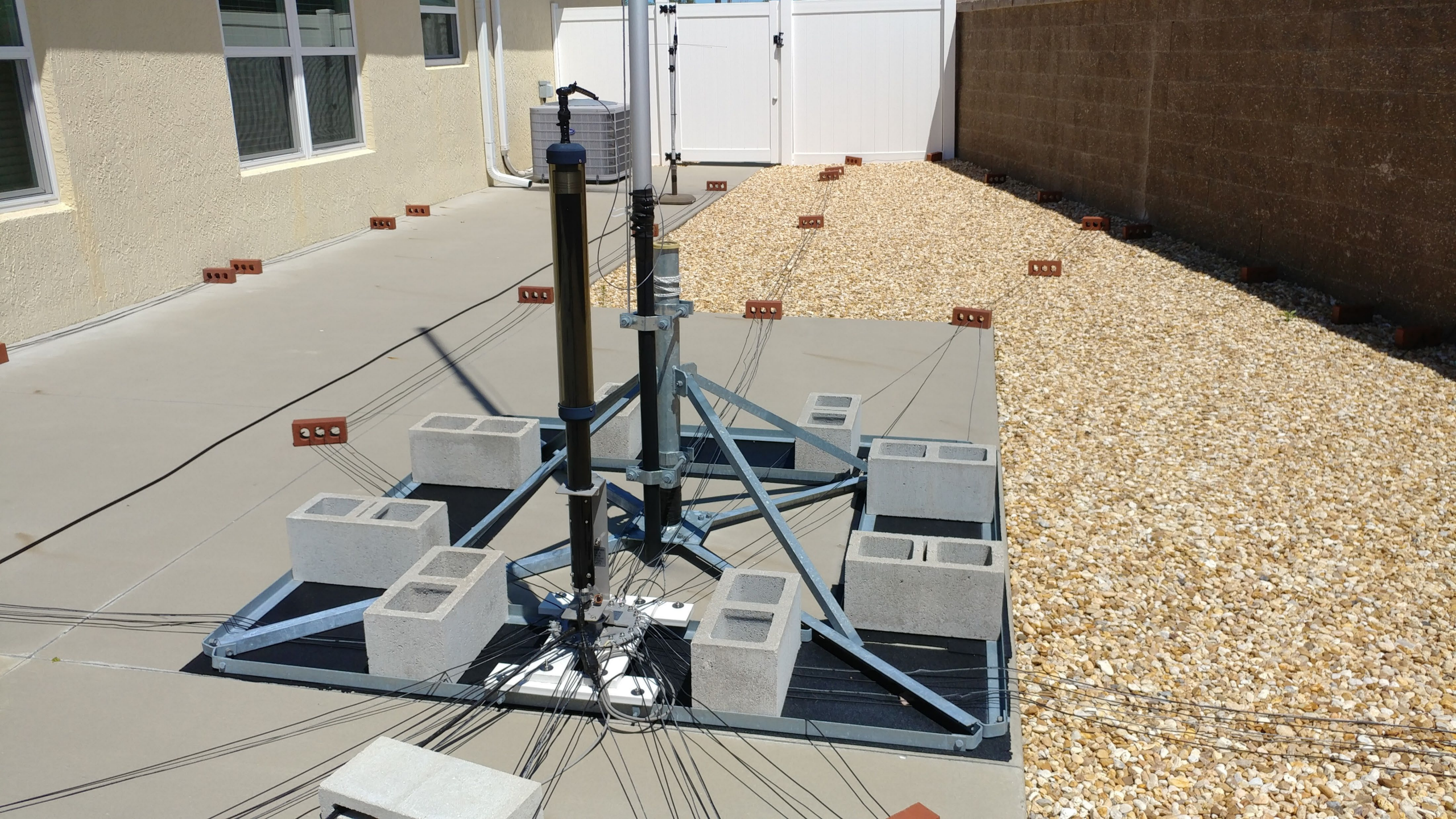
43ft with 43 ft. Radials

“Tell Us About Your Antenna”

W2TR

Gary

Sienkiewicz



Yards On The Air

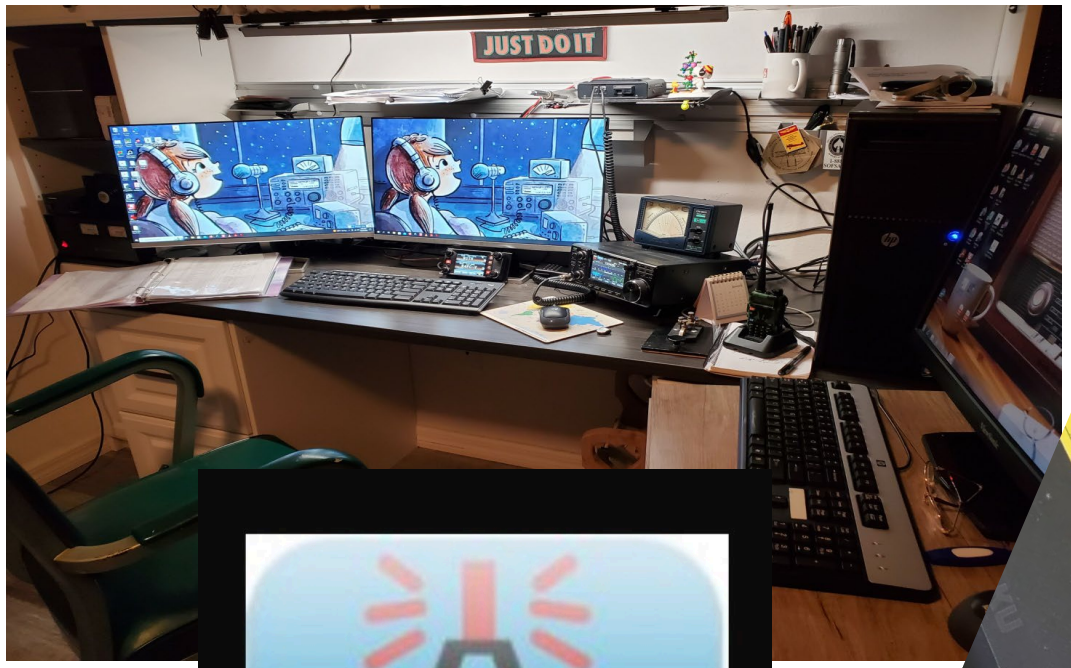
Faith Olen, N4FMO

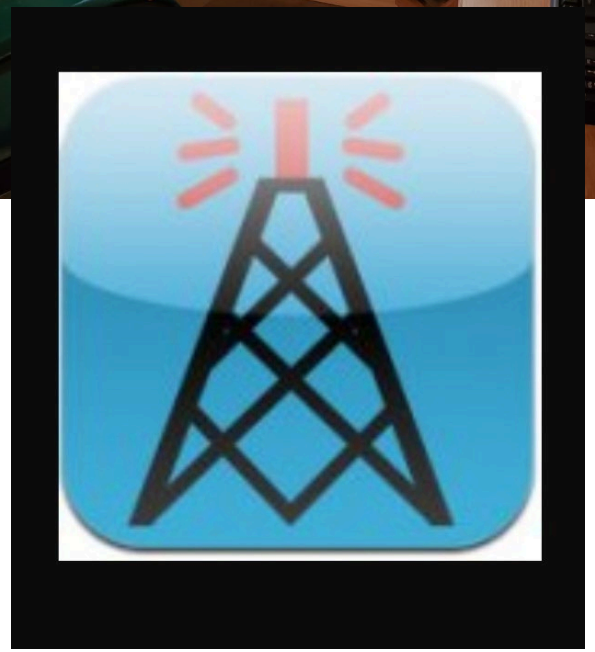
YOTA:
“Yards On The Air”

-.-- --- - .-

Where The Trees Are Older And The Antennas Are Taller.

JUST SAYING…





Behind the Bushes

The Journey Begins:

Diamond X50A
Dual Band
146/440 MHz

Outpost Tripod
For
HF HAM Sticks


Hamstick

Dealing with **NO** drilling and **NO** holes restrictions!

Least Invasive

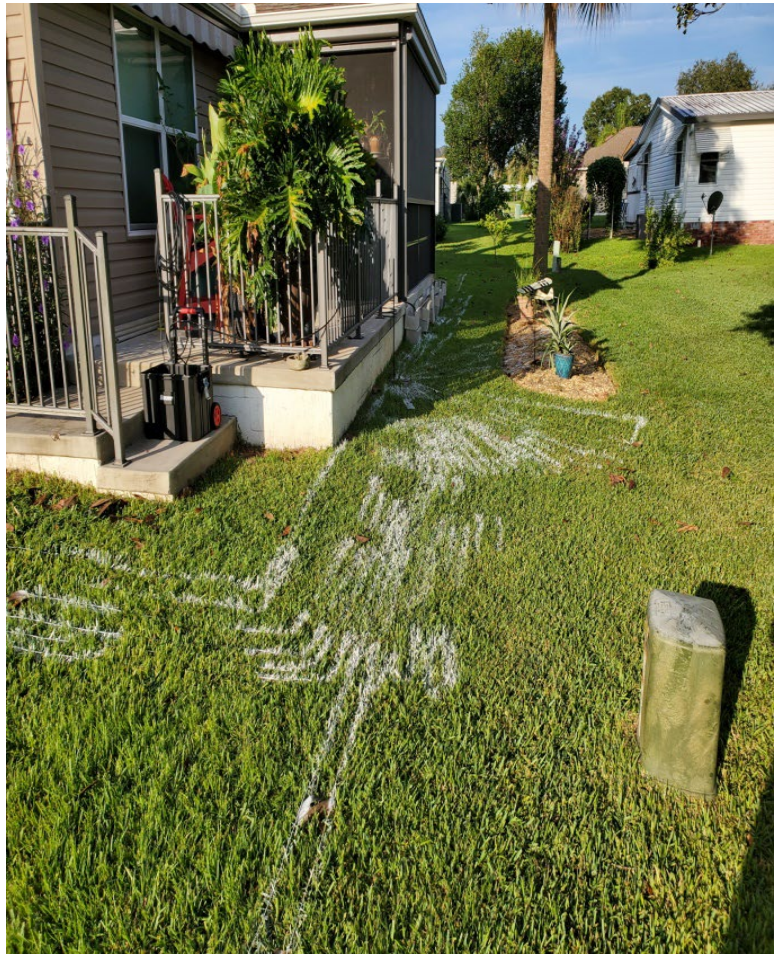
First Back Yard Experiment
Thank You K2DM

20 Meter HAM Stick Dipole
Thank You To Another Elmer, W2TR

But…. Wait… I wanted more!

Wanted more than a HAM Stick dipole.

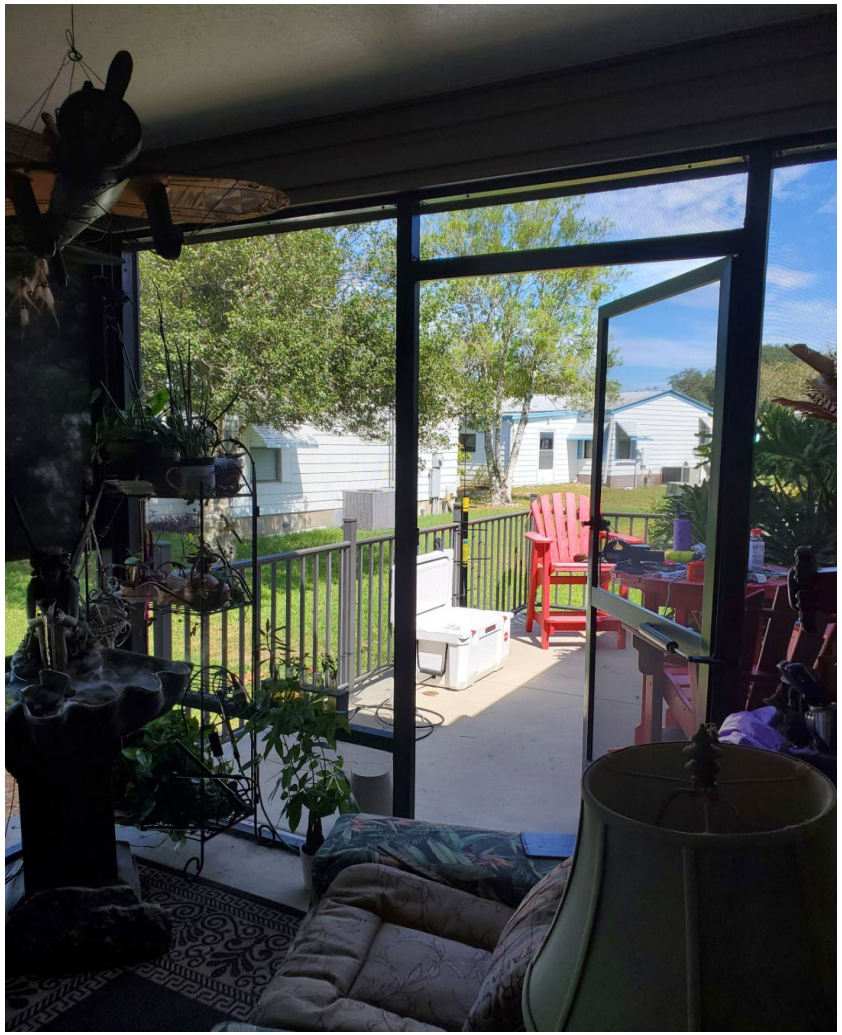
I wanted a multiband antenna!



A total of 40 radials were cut for the 80,40,30,20,17,15,12,10 meter bands.
It was a great learning experience!

Radial System Installation In Progress

Added The ICOM AH-730 Tuner To Complement My ICOM 7300



Adding a Feedline Choke

Temperature and humidity remote sensor was also added.

MFJ-1910 Fiberglass Pole

Dipole, Vertical And The AH-730 Tuner

Vertical and Dipole, Together, In The Back Yard.

YOTA: Yards On The Air

3 Antennas In The Front Yard
2 In The Back Yard

73 + 88 From “RG” (Radio Girl)

Elmers are wonderful!

They say behind every great Amateur Radio operator there is a great Elmer – hope to some day make all my Elmers proud!

Thanks to all the Elmers in my life.

Special dedication to my first Elmer

CWO 4 Bob Olen KE4IPW (SK)

“RG”

N4FMO